

MAINE DEPARTMENT OF CORRECTIONS

MAINE COUNTY JAIL POPULATION STUDY

- **Probation Revocation Survey Data**
- **County Jail Population Projections: 2010**

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for

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February 2002

EXECUTIVE SUMMARY

This report estimates the future size of the Maine local jail populations and the impact that the probation revocation population is having on the current and projected jail populations. This effort was part of a larger analysis being conducted by SMRT in association with Pulitzer/Bogard & Associates (P/BA) in developing the Phase II Capital Plan for the Maine Department of Corrections.

Major Trends

1. The size of the at-risk population (males age 18-35) declined over the past decade, and will remain largely unchanged over the next ten years.
2. The reported crime rate has declined substantially over the past decade. Since there is a strong association between the reported crime rate and the size of the at-risk population, one can expect no increases in the crime rate unless other socio-economic factors related to crime rates worsen.
3. The state's arrest rate has increased dramatically since 1993 but has stabilized somewhat since 1998 although there was another increase in 2000 (approximately 800 increase). The offenses for which increases occurred were aggravated assault, fraud, drug abuse, and other miscellaneous crimes.
4. Juvenile arrests have steadily declined since 1996, from 12,856 to 9,990 in 2000. This declining trend in juvenile arrests also suggests a declining future need for adult criminal justice and correctional services and expenses.
5. There has been substantial growth in the state's jail population from 1996 to 2000. The in-house population has steadily increased from 839 in 1996 to 1,210 in 2000. However, the population appears to have peaked and declined slightly in 2001.
6. Although the number of male inmates in jails has increased substantially, the female inmate population has accelerated at the fastest rate having nearly doubled since 1996.
7. While there appears to be some fluctuation in the length of stay (LOS) for males and females (with females having a LOS of about half that of males), the major reason for the increase populations appears to be higher numbers of admissions that continue to exceed releases.
8. It is also noted that Length of Stay was the lowest in 1996, with males spending an average of 10 days and females four days. By the year 2000, those numbers had increased to 12 and 5 days respectively. These lengths of stay are low when compared to the national data that report an average LOS of 15-16 days.

Probation Violators

1. Although the number of probationers having their probation terms revoked is not increasing, the number of probation violators being detained in the county jails has increased.
2. On any given day, there are approximately 360-365 inmates in the county jail system whom are accused or convicted probation violators. This population constitutes about 25% of the jail population.
3. Unlike the typical jail inmate, these inmates have a much longer length of stay (three to four months) and thus occupy a disproportionate number of jail beds.
4. The vast majority (over 60%) of these probation violators have an underlying sentence of less than nine months and less than 10% had a sentence of one year or more.
5. Approximately 40% of these inmates have a technical violation while another 60% have a criminal charge. The vast majority of the criminal charges are for property, drug, and motor vehicle related crimes.

Jail Population Projections

1. The Maine jail populations have steadily increased from 959 inmates in 1996 to 1,367 in 2000. However, the population unexpectedly declined in 2001 to 1,130.
2. Due to a stable at-risk population coupled with a declining crime rate, one can anticipate a leveling off of adult arrests and probation violations. All of these trends point toward either a continuation of stable or relatively slow growth pattern for the next decade.
3. Factors that may point to continuing growth would be the larger increase of female inmates and probation violators who are being detained for extended periods of time.
4. Based on these various factors and under current criminal justice practices and policies, it is projected that the overall jail population will increase to 1,518 by the year 2010. It is also possible that this rate of growth may be even lower based on the recent decline for 2001 as noted above.
5. The female population is projected to increase at a much faster rate (32%) but will still only represent a small proportion of the total jail population (160 inmates).

6. There will be a moderate shortage of beds (47) with some counties having a greater need than others. The largest deficits will be for Kennebec, Washington, Aroostook, Lincoln, Penobscot, and Somerset. The large Sagadahoc deficit is based on the lack of any jail beds for that county. (Lincoln and Sagadahoc Counties are presently studying the feasibility of collaborating on the construction of a new regional jail) On the other hand, there are several jails that will require no additional beds under the current assumptions that underpin their ten year forecast. It is important to note that the shortages reflect average daily populations and do not include peak operating conditions when the shortage of beds could be 15% to 35% higher. (see discussion that follows)
7. In order to avoid significant periods of crowding during a calendar year and to provide the proper separation of inmates while incarcerated, a peaking and classification factor should be added to these estimates when translating jail populations to numbers of beds required. This factor is especially high due to the very small size of most Maine jails and the fact that the required disaggregations of inmates require a disproportionate number of additional beds in small facilities. Accordingly, the smaller jails would have a peaking factor of 30%-35% and the larger jails would have a peaking factor of 15%.

PROJECT METHODOLOGY

The jail population estimates were developed by assembling a wide array of data that either directly or indirectly impacts the jail population. Specifically, we first examined historical and projected trends of the at-risk population the population that is most likely to be arrested and incarcerated. We then evaluated trends and reported crime and arrests. Finally, we reviewed jail population trends in terms of their admissions, releases, daily population and estimated lengths of stay. All of these data were factored into a multivariate regression model that also took into account the most recent jail population trends.

In making the projections, a special analysis was conducted of the probation violator population that constitutes a significant portion of the jail population. This analysis was completed by relying on aggregate level data as reported by the counties, as well as detailed two-day survey that was conducted on October 27 and 29, 2001.

STATE-WIDE DEMOGRAPHIC TRENDS

In terms of future population growth, there are a number of factors that can contribute to future growth. Two related factors are the number of persons who pose a high risk of being involved in the crime and eventually being arrested and incarcerated, and, the amount of crime occurring in a jurisdiction, The at-risk population 'reflects those persons most likely to commit crimes for which one is also likely to be arrested and processed through the criminal justice system. It is a well established fact that young males are disproportionately involved in crime and criminal justice statistics. For example, in Maine, of the all the persons arrested in the year 2000, 78% were males and 83% were persons under age 35, with most of the arrests occurring for persons age 18-39. Thus, its important to take into account the size and projected growth of the at-risk population.

As shown in Table 1, over the past decade Maine has experienced little growth in its overall statewide population and a decline in the at-risk population. A declining at-risk population coupled with a stable overall population translates into an aging overall population.

Based on the foregoing facts, one would then expect a declining crime rate. As Table 2 illustrates, there has been such a relationship between reported crime rates and changes in the at-risk population. However, reported crime does not necessarily correlate with arrests or jail populations. Table 3 summarizes both reported crime rates and arrests. With respect to the crime rates (per 1,000 population), Maine, like the rest of the United States has experienced a sharp decline. It is also noteworthy that Maine has a significantly lower crime rate compared to the rest of the country, which also translates into a much lower incarceration rate. The Maine data also highlight the fact that fluctuations in incarceration rates do not necessarily translate into lower crime rates.

TABLE 1
STATE OF MAINE POPULATION ESTIMATES
1990-2010

Year	State of Maine Total	Males Age 18-35
1990	1,228,000	174,824
1991	1,235,000	171,507
1992	1,235,000	166,934
1993	1,239,000	163,401
1994	1,240,000	158,091
1995	1,241,000	154,855
1996	1,243,000	152,796
1997	1,243,000	150,801
1998	1,244,000	148,600
1999	1,245,000	147,311
% Change	1%	-16%
2000	1,249,000	144,374
2001	1,256,000	143,379
2002	1,263,000	142,840
2003	1,271,000	142,883
2004	1,279,000	143,147
2005	1,285,000	143,185
2006	1,293,000	142,822
2007	1,301,000	142,599
2008	1,308,000	143,215
2009	1,315,000	144,199
2010	1,323,000	145,207
% Change	6%	1%

TABLE 2
MAINE REPORTED CRIME RATES
and
MALE POPULATION AGES 18-35

Year	Reported Crime			Males 18-35
	Index	Violent	Property	
1990	45,406	1,759	43,647	174,824
1991	46,695	1,631	44,900	171,507
1992	43,321	1,616	41,900	166,934
1993	39,250	1,558	37,519	163,401
1994	40,668	1,611	38,971	158,091
1995	41,334	1,631	39,132	154,855
1996	42,046	1,553	40,636	152,796
1997	39,054	1,500	37,396	150,801
1998	38,053	1,565	36,261	148,600
1999	35,941	1,283	34,658	147,061
2000	33,470	1,390	32,080	146,999
% Change	-26%	-21%	-27%	-16%

TABLE 3
REPORTED CRIME AND ARREST TRENDS
1991-2000

Year	Maine Adult Arrests	Reported Crime Rates		Incarceration Rates	
		Maine	US	Maine	US
2000	46,341	26.25	43.44	130	438
1999	45,468	29.10	42.67	128	428
1998	45,649	30.81	46.18	125	423
1997	42,469	31.62	50.79	124	410
1996	42,414	34.03	52.78	108	393
1995	39,459	33.47	52.78	107	379
1994	37,586	32.95	53.74	113	358
1993	37,494	31.78	54.83	116	322
1992	41,416	35.08	56.60	121	305
1991	43,827	38.21	58.98	123	287
% Change 96-2000	9%	-23%	-18%	20%	11%
% Change 91-2000	6%	-31%	-26%	6%	53%

Source: Maine Department of Public Safety, *Crime in Maine 2000* and Bureau of Justice Statistics, US Department of Justice.

With respect to adult arrests, the number of arrests has increased dramatically since 1993 but has stabilized somewhat since 1998 although there was another increase in 2000 (approximately 800 increase). The offenses for which increases occurred in 2000 were aggravated assault, fraud, drug abuse, and other miscellaneous crimes. It should also be noted that juvenile arrests have declined steadily since 1996 from 12,856 to 9,990 in 2000.

Jail Population Trends

There has been substantial growth in the state's jail population. The in-house population has steadily increased from 839 in 1996 to 1,210 in 2000. However, the population declined between 2000 and 2001. It appears that the decline in 2001 has been driven by a declining number of admissions, which has been somewhat compensated by a slightly higher Length of Stay. It is not clear that this time whether the 2001 decline will persist in 2002 but it is consistent with the demographic and crime rate trends noted earlier.

Although the male population has increased substantially over this time period, the female inmate population has accelerated at the fastest rate having nearly doubled since 1996. While there appears to be some fluctuation in the Length of Stay (LOS) for males and females (with females having a LOS of about half that of males), the major reason for the increased population appears to be higher numbers of admissions that continue to exceed releases. There were 2,601 additional admissions in 2000 as compared to 1996. It is also noted that LOS was the lowest in 1996 with males spending an average of 10 days and females four days. By the year 2000, those numbers had increased to 12 and five days respectively. While this may seem to be a relatively small increase, each additional day in the LOS will result in an additional 90 - 100 inmates to the overall jail population. It should be added here that these lengths of stay are relatively low compared to the national data that report an average LOS of 15 - 16 days. Most of the major urban jails have lengths of stay of 30-45 days.

The state also collects data on persons who are not housed in a particular county jail but are either located or housed in other county jails. One major category is the "Boarders". These may be inmates who have been transferred from one jail to another for a variety of reasons. For example, Sagadahoc County has no jail and boards virtually all its inmates in the Kennebec County Jail. Statewide up until 2001, there had been an increasing number of inmates who were part of the in-house population but who had been transferred from another jurisdiction. By the year 2000, this population had reached an average of 122 persons. But in 2001, it dropped by nearly 50 percent to only 66 inmates. This is displayed in Table 5.

TABLE 4
MAINE JAIL POPULATION TRENDS
IN-HOUSE POPULATION
1996-2001

Year	Population		Admissions		Releases		LOS	
	Male	Female	Male	Female	Male	Female	Male	Female
1996	786	53	30,820	4,989	30,006	4,923	10	4
1997	917	68	32,509	5,599	32,176	5,457	12	5
1998	918	77	31,222	5,580	31,123	5,497	11	5
1999	994	85	32,082	5,854	31,865	5,689	11	5
2000	1,117	93	33,421	6,391	32,886	6,264-	12	5
2001	941	89	27,501	5,417	26,426	5,164	13	6

Note: 2001 figures are estimated based on data reported to date by Maine DOC

TABLE 5
MAINE JAIL POPULATION TRENDS BY STATUS
1996-2001

Year	In House Total	Out of Jail		Total Responsible
		Boarded	Other	
1996	839	102	18	959
1997	913	103	27	1.043
1998	995	82	34	1.111
1999	1.079	113	40	1.232
2000	1.210	122	35	1.367
2001	1.030	66	34	1.130

Note: 2001 figures are estimated based on data reported to date by county jails to Maine DOC

There is also another sizeable number of persons who are under the jail's jurisdiction but are located elsewhere who are labeled as "other". The state considers these two populations to *form* what is referred to as the "total responsible" population, which is about 10-15% of the in-house population. The population projections presented later on in the report include these inmates who are not part of the "in-house" daily population. If the projections were done based on the in-house population figures they would be 10-15 percent lower.

Probation Violators in Local Jails

A major group of inmates being held in the local jail system are those who have been admitted to custody for violation of their terms of probation. These probationers may be in custody for a technical violation or because they were arrested for a new crime. They will remain in custody until the courts dispose of either the allegations of a technical violation or a new crime(s). Consequently, the number of persons admitted to jail for technical violations fluctuates, and there will be an associated impact on the jail populations.

Table 6 shows the total number adult probation violations from 1999 through the first ten months of 2001. These figures are separated by whether the violation is either a partial or full violation and whether it was for a technical violation or a new offense. Table 7 summarizes the number of full probation revocations as reported statewide from 1998 through October 2001 separated by technical and new offense violations. Table 8 shows the same analysis for the partial revocations. The "County Jail" column reflects how many of these violators were processed via the county jail system. A majority of the full violations are for new offenses which means the courts must complete a determination of guilt or innocence to be followed by a sentencing decision. In most jurisdictions, these cases spend a longer period of time in custody as opposed to those placed in custody for a technical violation. Such data on LOS do not exist for Maine but one can make the same assumption.

The overall trend in these tables shows that the total number of violations has fluctuated with no discernable pattern. What is clear is that the number of violations (both partial and full) that result in being processed through the county jail system has increased substantially. The largest increase has been technical violations that result in a county jail placement.

To better understand the numbers and types of probation violators now being housed in the various county jails, a survey was conducted on Saturday, October 27 and Monday, 29, 2001. These two days of the week were selected as they represent the fluctuating dynamics experienced by the county jails. A total of 732 survey forms were completed by each jail over the two year period with 361 verified for October 27 and 370 for October 29 (there was one returned survey form that could not be identified or linked to a specific county). The results of the survey are displayed in table 9. Based on the daily populations reported by the DOC for these two days, the probation violators represented about 24 percent of the jail population on any given day.

TABLE 6
TRENDS IN ADULT PROBATION REVOCATIONS
1999-2001

Year	All Revocations			Type of Revocation		
	Partial	Full	Total	Technical	New Offense	Total
1999	1,880	1,073	2,953	1,478	1,475	2,953
2000	1,671	1,095	2,766	1,364	1,402	2,766
2001	1,734	1,104	2,838	1,493	1,345	2,838

TABLE 7
TRENDS IN ADULT PROBATION
FULL REVOCATIONS ONLY
1999-2001

Year	Technical		New Offense		Total	
	Total	County Jail	Total	County Jail	Total	County Jail
1999	432	124	641	389	1,073	513
2000	385	200	710	260	1,095	460
2001*	461	341	643	392	1,104	733

* The 2001 figures are extrapolated for the entire year based on the first ten months of 2001.

TABLE 8
TRENDS IN ADULT PROBATION
PARTIAL REVOCATIONS ONLY
1999 - 2001

Year	Technical		New Offense		Total	
	Total	County Jail	Total	County Jail	Total	County Jail
1999	1,046	264	834	389	1,880	653
2000	979	526	692	374	1,671	900
2001*	1,032	811	702	462	1,734	1,273

* The 2001 figures are extrapolated for the entire year based on the first ten months of 2001.

TABLE 9
JAIL POPULATIONS AND PROBATION VIOLATORS
October 27 and 29, 2001

County	October 27			October 29		
	Population	PVs	% of Total	Population	PVs	% of Total
Androscoggin	132	25	19%	130	25	19%
Aroostook	57	20	35%	54	23	43%
Cumberland	414	130	31%	414	139	34%
Franklin	34	16	47%	31	11	35%
Hancock	44	1	2%	60	0	0%
Kennebec	145	35	24%	143	35	24%
Knox	39	11	28%	42	9	21%
Lincoln	35	10	29%	35	8	23%
Oxford	42	6	14%	45	2	4%
Penobscot	154	37	24%	160	34	21%
Piscataquis	33	0	0%	34	0	0%
Sagadahoc	0	0	0%	0	0	0%
Somerset	68	20	29%	69	28	41%
Waldo	34	15	44%	34	15	44%
Washington	52	7	13%	53	5	9%
York	156	28	18%	164	28	17%
Totals	1.439	361	25%	1.468	362	25%

Note: Sagadahoc County does not have a jail. PVs that are under the jurisdiction of Sagadahoc (an estimated 5-6 inmates) are now housed in the Kennebec jail.

Thus, it's from these results that a sizeable proportion of the jail population consists of the probation violators and there is considerable variation among the counties. The counties with the largest number of probation violators are Cumberland, York, Kennebec, Androscoggin, Somerset, and Penobscot. The remaining jails, which tend to be quite small, reported very low numbers or no such persons in custody.

These data should be taken into account with the following caveats. The sampling on just two days in a particular month necessarily delimits the ability of the analysis to be representative of the entire year's universe of persons incarcerated within the various jails. This is especially true in attempting to make comparisons among the jail and in particular the smaller jails. It would have been preferred to have sampled on several more days over a longer period of time. However, the resources allocated for this study along with time limitations did not allow for a more comprehensive methodology. But despite these limitations, the data do provide a useful assessment of the number and types of persons detained in the jails for probation violations. Some of the other significant findings associated with the survey are shown in Tables 10 and 11 and can be summarized as follows:

- ▶ Most of the violators are in custody for new crime charges which is consistent with the aggregate data reported earlier;
- ▶ Most have been convicted of probation violation and have been in custody for an average of 75 days. It has also been approximately 49 days since these inmates have been convicted and sentenced. Their average sentence is about six months;
- ▶ A much smaller number have been convicted of another offense. This group has been in custody for 101 days and have been in jail for 83 days from the date of sentencing, probably reflecting the fact that the cases are more complicated to dispose of in a timely manner.
- ▶ In those cases where the underlying probation sentence is known, the vast majority of these sentences were under one year, and most were sentences of under nine months. Only ten percent of the sample had an original sentence of one year or more.
- ▶ The types of behaviors and new crimes associated with the probation violator survey shows that with exception of assault and domestic violence, all of the other reasons listed were for non-violent incidents. As expected, a considerable number of the violations are associated with drug and alcohol use and failure to abide by conditions of supervision.

TABLE 10

**PROBATION REVOCATION COUNTY JAIL SURVEY
Total Responses for Both October 27 and 29, 2001**

Attribute	N	Percent
Total Cases	732	100%
Reason For Admission		
Technical Violation	252	34%
New Crime	409	56%
Court Warrant Probation Violation	59	8%
Missing	12	2%
Current Status/Legal Status (not mutually exclusive)		
Probation Hold Requested	62	8%
72 Hour Hold	23	3%
Pending Revocation	326	45%
Convicted of Probation Violation	444	61%
Time is Custody To date (in days)	75 days	
Time in Custody Since PV Sentence (in days)	49 days	
Average Sentence Length	186 days	
Convicted of Other Offense	141	20%
Time is Custody To date (in days)	101 days	
Time in Custody Since Sentence (in days)	83 days	
Average Sentence Length	145 days	
If Convicted are the Sentences Concurrent?	104	14%
Underlying Sentence of Original Probation?		
Less than 9 months	444	61%
9 month to 364 days	49	7%
One year or more	66	9%
Unknown	165	23%

TABLE 11

OFFENSES AND TYPES OF VIOLATIONS
Total Responses for Both October 27 and 29, 2001

Violations/Offenses	N	%
Total Cases	732	100%
Total Technical Violations	308	42%
Drugs/Alcohol	170	23%
Failure to Report	45	6%
Violations of Supervision	76	14%
Other	17	2%
New Criminal Charges	427	58%
Assault	99	14%
Burglary	45	6%
Criminal Mischief	15	2%
Criminal Trespass	18	2%
Disorderly Conduct	13	2%
Domestic Violence	18	3%
OAR	10	1%
OUI	32	4%
Theft	44	6%
Drugs	21	3%
Traffic Violations	66	9%
Other	46	6%

Note: The numbers of technical violations and criminal charges do not sum to 732 as one can have multiple charges and technical violations.

County Jail Population Projections

As noted earlier, since 1996, the Maine jail populations have steadily increased. However, there are sound reasons to believe that the population will not continue at the same pace due to a stable at risk population coupled with a declining crime rate. Arrests have increased, but unless there are plans to either further enhance law enforcement practices and/or add additional police officers, one can anticipate a leveling off of adult arrests. Finally, probation violations have also stabilized. All of these trends point toward a relatively slow growth pattern for the next decade. Clearly, the recent downturn in the jail population for 2001 are consistent with such assumptions.

Assuming that these criminal justice policies have now stabilized and remain consistent with the projected increases in both the at-risk and total state (total and at-risk) and county populations, it is projected that the jail population will, at best, increase moderately over the next decade by approximately 14-15% (see Table X). This estimate is based on log-linear regression with exponential smoothing of the total responsible population. The log-linear estimates temper what would be straight linear regression estimate and incorporates the projected risk population, crime rates and arrest rate trends. The projected rate is lower than the actual jail population growth between 1996 and 2000 but takes in account the decline between 2000 and 2001.

In addition to this level of growth, a peaking/classification factor should be added to these projections. The peaking/classification factor recognizes that jails have significant fluctuations in its jail population over the course of a year. Furthermore, at any given time, jail beds cannot be used for double or single ceiling due to the need keep certain inmates separated from one another (males from females, maximum custody from minimum custody, etc.). Jail population fluctuations have been severe in both directions. Therefore to determine actual bed space demand, peaking factors were computed for each jail based on the monthly 2000 figures for each jail. These peaking/classification factors are higher for the small jails.

Finally, we contrast the projected jail populations by the year 2010 with the projected bed capacity of each jail (Table 12). Here one can see that there will be a moderate surplus of beds (11) with some counties having a greater need than others. The largest deficits will be for Kennebec, Washington, Aroostook, Lincoln, Penobscot, and Somerset. The large Sagadahoc deficit is based on the lack of any jail beds for that county. (Lincoln and Sagadahoc Counties are presently studying the feasibility of collaborating on the construction of a new regional jail) On the other hand, there are several jails that will require no additional beds under the current assumptions that underpin their ten year forecast. It is important to note that the surplus reflect average daily populations and do not include peak operating conditions when beds needs could be 15% to 35% higher. (see discussion that follows)

The need for additional bed space should be further adjusted to account for a peaking factor that takes into account seasonal fluctuation and the need to keep certain types of inmates housed separately from others. Therefore, to avoid significant periods of

crowding during a calendar year and to provide the proper separation of inmates while incarcerated, a peaking and classification factor should be added to these estimates when translating jail populations to numbers of beds required. This factor is especially high due to the very small size of most Maine jails and the fact that the required disaggregations of inmates require a disproportionate number of additional beds in small facilities. Accordingly, the smaller jails would have a peaking factor of 30%-35% and the larger jails would have a peaking factor of 15%.

TABLE 12
PROJECTED JAIL POPULATIONS AND BED CAPACITY
by 2010

County	Current Bed Capacity	Projected Population 2010	Difference
Androscoggin	118	121	-3
Aroostook	66	80	-14
Cumberland*	490	429	62
Franklin	23	33	-10
Hancock	54	47	7
Kennebec	131	155	-24
Knox	55	50	5
Lincoln	20	34	-14
Oxford	44	40	4
Penobscot	136	150	-14
Piscataquis	39	29	10
Sagadahoc	0	42	-42
Somerset	45	59	-14
Waldo	33	40	-7
Washington	42	57	-15
York	223*	152	71
Totals	1,529	1,518	11

Note: Bed capacity based on "long-term" beds as defined by the Maine Department of Corrections. These figures exclude short-term, up to 72 hour beds. Cumberland County capacity include 58 pre release beds & does not include 6 medical beds.

*This number is the capacity for the new York County Jail, presently under construction.

Note: Somerset, Lincoln and Sagadahoc Counties are in the planning stage to expand existing bed Capacity. (Somerset 80-100 beds, Lincoln & Sagadahoc 125-140beds) These bed capacities are not included in Chart 12 above.